

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P152805

Luminaire Tested: **VWM-F04-LED-E1-SLL**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P152805
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33681)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VWM-F04-LED-E1-SLL
Description: VISION WALL MEDIUM LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9187.9 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

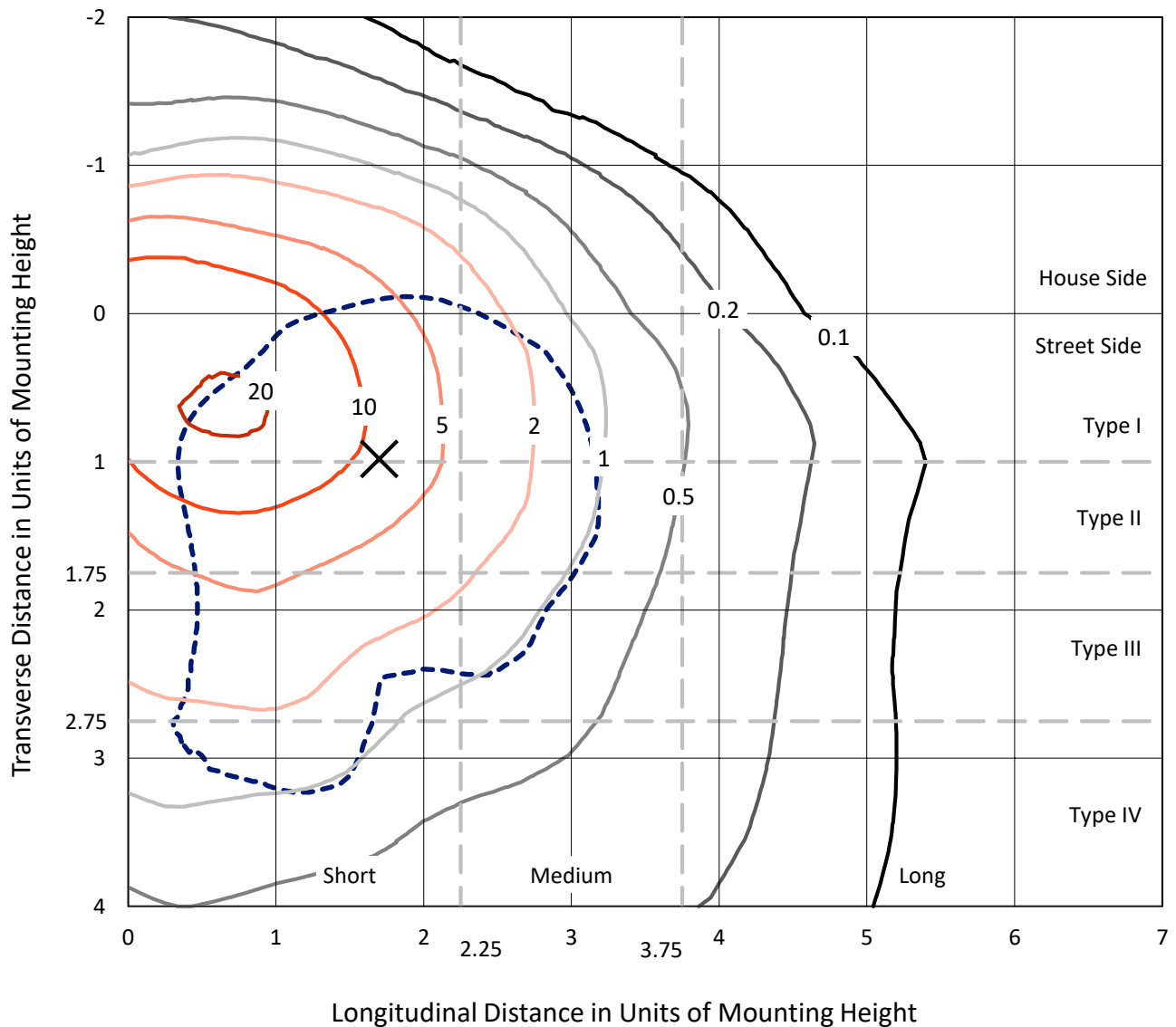
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

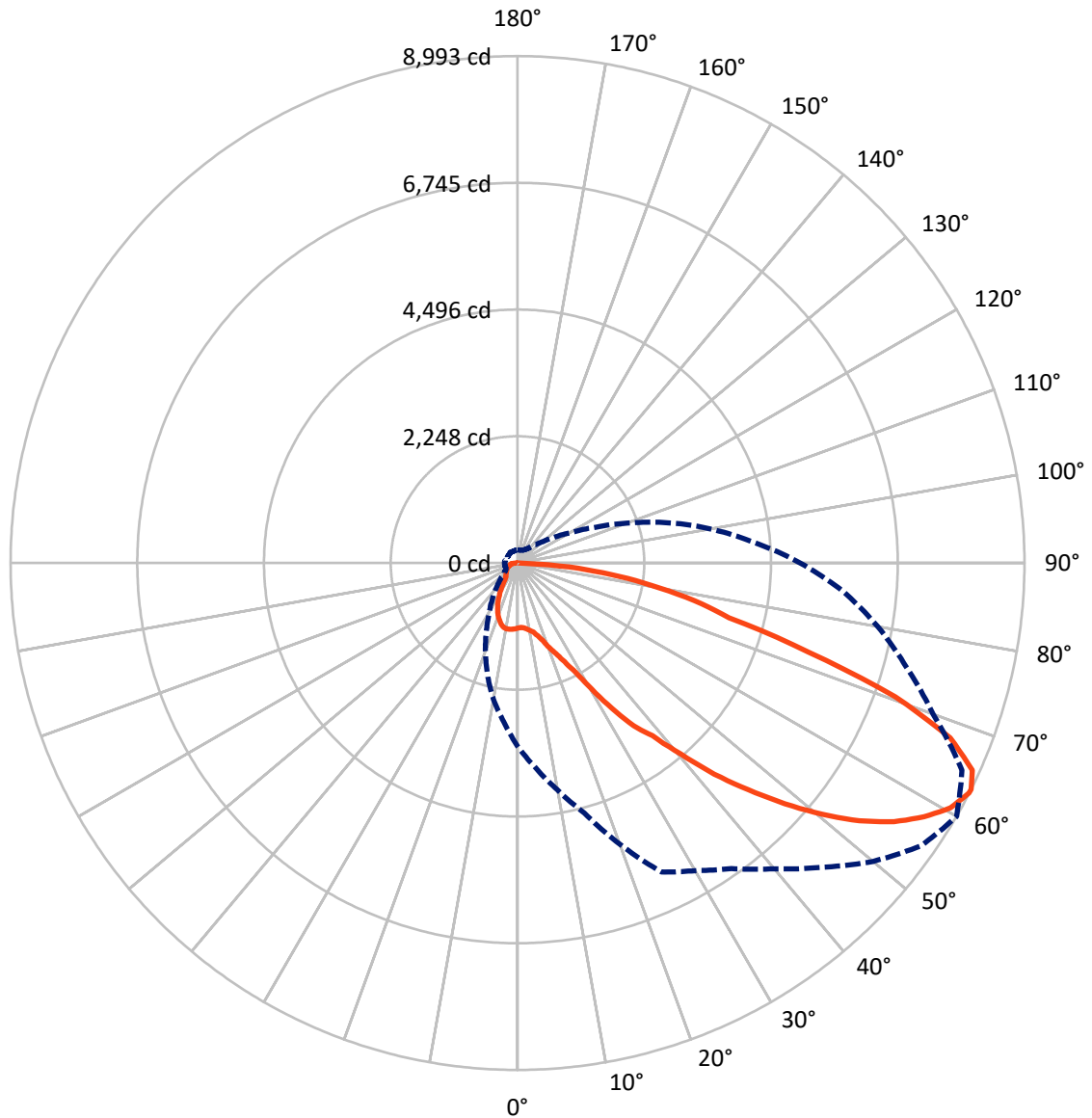
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 22.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1992.4	0.0	1992.4
	% Fixture	21.7	0.0	21.7
Street Side	Lumens	7195.6	0.0	7195.6
	% Fixture	78.3	0.0	78.3
Total	Lumens	9187.9	0.0	9187.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	1.2
10°-20°	350.1	3.8
20°-30°	621.9	6.8
30°-40°	979.3	10.7
40°-50°	1441.2	15.7
50°-60°	1914.4	20.8
60°-70°	2108.7	23.0
70°-80°	1323.0	14.4
80°-90°	337.0	3.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	9187.9	100.0
0°-180°	9187.9	100.0

Coefficient of Utilization



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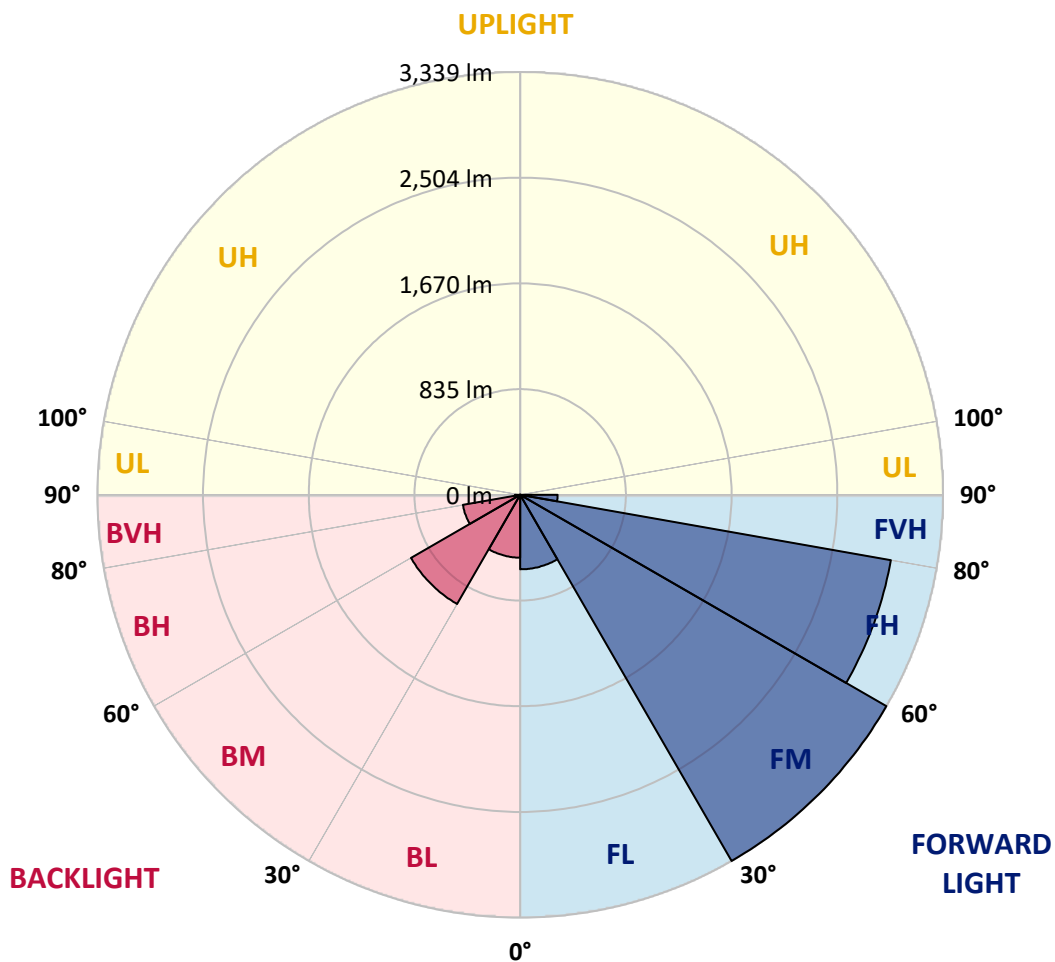
CATALOG NUMBER: VWM-F04-LED-E1-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	588.3	6.4			
FM	(30°-60°)	3339.1	36.3			
FH	(60°-80°)	2972.4	32.4			G2/5000
FVH	(80°-90°)	295.7	3.2			G3/500
BL	(0°-30°)	496.0	5.4	B1/500		
BM	(30°-60°)	995.8	10.8	B1/1000		
BH	(60°-80°)	459.2	5.0	B1/500		G1/500
BVH	(80°-90°)	41.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6
2.5°	1139.2	1141.4	1141.4	1140.3	1140.3	1142.5	1141.4	1140.3	1137.0	1141.4	1141.4
5°	1130.4	1132.6	1132.6	1134.8	1137.0	1139.2	1139.2	1141.4	1140.3	1144.7	1148.0
7.5°	1141.4	1143.6	1148.0	1153.5	1156.8	1164.5	1164.5	1170.0	1172.2	1175.5	1174.4
10°	1155.7	1161.2	1171.1	1180.0	1186.6	1195.4	1202.0	1209.7	1209.7	1213.0	1215.2
12.5°	1181.1	1186.6	1197.6	1208.6	1218.5	1229.5	1239.4	1247.1	1254.8	1257.0	1261.4
15°	1222.9	1229.5	1246.0	1261.4	1273.5	1287.8	1301.0	1316.4	1330.7	1334.0	1336.2
17.5°	1285.6	1298.8	1310.9	1338.5	1356.1	1374.8	1395.7	1417.7	1422.1	1445.2	1450.7
20°	1374.8	1391.3	1402.3	1436.4	1466.1	1490.3	1521.2	1546.5	1556.4	1578.4	1600.4
22.5°	1528.9	1525.6	1542.1	1576.2	1598.2	1646.6	1673.1	1699.5	1712.7	1745.7	1763.3
25°	1735.8	1753.4	1789.7	1793.0	1814.0	1870.1	1904.2	1930.6	1931.7	1941.6	1960.3
27.5°	1939.4	2012.1	2069.3	2100.1	2156.3	2208.0	2205.8	2243.2	2184.9	2197.0	2214.6
30°	2186.0	2307.1	2414.9	2487.6	2544.8	2605.4	2635.1	2656.0	2630.7	2619.7	2598.8
32.5°	2417.1	2586.6	2752.9	2881.6	2988.4	3088.6	3154.6	3184.3	3219.5	3308.7	3340.6
35°	2575.6	2815.6	3022.5	3208.5	3386.9	3546.5	3662.0	3728.1	3702.8	3690.6	3684.0
37.5°	2670.3	2963.1	3221.7	3484.8	3689.5	3928.4	4107.8	4281.7	4321.3	4252.0	4217.9
40°	2729.7	3076.5	3408.9	3719.3	3984.5	4292.7	4515.1	4775.9	4974.1	5000.5	4919.0
42.5°	2758.4	3152.4	3539.9	3891.0	4249.8	4627.3	4909.1	5225.0	5521.1	5724.7	5674.1
45°	2762.8	3201.9	3635.6	4046.2	4473.2	4921.2	5284.5	5634.5	6030.7	6379.7	6389.6
47.5°	2762.8	3239.4	3701.7	4158.4	4673.6	5176.6	5572.8	5986.7	6472.1	6884.9	7011.5
50°	2765.0	3264.7	3763.3	4246.5	4826.6	5392.3	5840.3	6329.0	6839.7	7288.8	7533.2
52.5°	2774.9	3283.4	3811.7	4309.2	4925.6	5544.2	6048.3	6611.9	7120.4	7581.6	7897.5
55°	2796.9	3309.8	3846.9	4347.8	4991.7	5643.3	6199.1	6805.6	7302.0	7769.8	8211.2
57.5°	2858.5	3356.0	3889.9	4381.9	5028.0	5708.2	6304.8	6889.3	7371.4	7859.0	8377.4
60°	2981.8	3454.0	3963.6	4450.1	5088.5	5828.2	6355.4	6833.1	7320.8	7832.6	8414.9
62.5°	3178.8	3607.0	4066.0	4565.7	5261.3	6014.2	6316.9	6665.8	7121.5	7679.6	8281.7
63°	3247.1	3640.0	4089.1	4591.0	5308.7	6048.3	6300.4	6616.3	7080.8	7631.2	8234.3
65°	3437.5	3786.4	4199.2	4718.7	5503.5	6082.5	6171.6	6358.7	6799.0	7354.9	7954.8
67.5°	3793.0	4141.9	4435.8	4934.4	5667.5	5948.2	5772.1	5795.2	6255.3	6830.9	7370.3
70°	4017.6	4433.6	4586.6	4962.0	5637.8	5749.0	5254.7	4948.7	5317.5	5973.5	6445.7
72.5°	3959.2	4436.9	4420.4	4595.4	5043.4	5146.9	4635.0	4152.9	4372.0	4861.8	5167.8
75°	3391.3	3962.5	3841.4	3806.2	3963.6	4031.9	3647.7	3574.0	3850.2	4122.1	4126.5
77.5°	2441.4	3069.9	2927.9	2724.2	2713.2	2870.6	2922.4	3405.6	3813.9	4028.6	3933.9
80°	1555.3	2236.6	2089.1	1733.6	1728.1	1932.8	2387.4	3044.5	3477.1	3597.1	3350.5
82.5°	812.3	1463.9	1520.1	1301.0	1489.2	1828.3	2271.8	2453.5	2617.5	2634.0	2343.4
85°	506.3	900.4	1058.9	1093.0	1345.1	1621.3	1618.0	1554.2	1481.5	1268.0	1146.9
87.5°	57.2	113.4	171.7	162.9	219.0	307.1	383.0	224.5	157.4	57.2	79.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6
2.5°	1143.6	1144.7	1145.8	1145.8	1151.3	1150.2	1151.3	1153.5	1156.8	1159.0	1161.2
5°	1152.4	1152.4	1156.8	1160.1	1166.7	1171.1	1173.3	1180.0	1187.7	1185.5	1192.1
7.5°	1181.1	1180.0	1184.4	1186.6	1192.1	1199.8	1198.7	1204.2	1210.8	1213.0	1218.5
10°	1219.6	1216.3	1216.3	1214.1	1215.2	1213.0	1213.0	1213.0	1217.4	1216.3	1220.7
12.5°	1259.2	1258.1	1255.9	1249.3	1249.3	1240.5	1236.1	1230.6	1229.5	1221.8	1222.9
15°	1340.7	1340.7	1336.2	1323.0	1312.0	1304.3	1293.3	1285.6	1274.6	1260.3	1252.6
17.5°	1459.5	1444.1	1438.6	1436.4	1418.8	1412.2	1388.0	1362.7	1350.6	1330.7	1319.7
20°	1604.8	1601.5	1579.5	1568.5	1546.5	1515.7	1484.8	1451.8	1432.0	1407.8	1394.6
22.5°	1768.8	1744.6	1733.6	1717.1	1683.0	1647.7	1601.5	1557.5	1526.7	1510.2	1500.3
25°	1960.3	1936.1	1925.1	1903.1	1861.3	1823.9	1766.6	1714.9	1687.4	1659.9	1644.4
27.5°	2214.6	2191.5	2178.3	2121.0	2106.7	2045.1	1974.7	1904.2	1867.9	1827.2	1800.7
30°	2594.3	2595.5	2527.2	2457.9	2386.3	2279.5	2205.8	2126.6	2067.1	2008.8	1950.4
32.5°	3236.1	3072.1	2945.5	2796.9	2641.7	2528.3	2436.9	2342.3	2259.7	2175.0	2078.1
35°	3627.9	3548.7	3384.7	3112.8	2956.5	2818.9	2717.6	2603.2	2501.9	2352.2	2204.7
37.5°	4070.4	3886.6	3687.3	3536.5	3359.3	3199.7	3030.2	2900.3	2725.3	2523.9	2314.8
40°	4716.5	4453.4	4213.5	4011.0	3782.0	3614.7	3425.4	3237.2	3004.9	2713.2	2425.9
42.5°	5391.2	5119.4	4802.4	4539.3	4269.6	4073.7	3839.2	3575.1	3233.9	2872.8	2521.7
45°	6099.0	5735.7	5356.0	5034.6	4753.9	4510.7	4220.1	3870.1	3454.0	3015.9	2610.9
47.5°	6796.8	6379.7	5927.3	5581.6	5216.2	4919.0	4562.4	4119.9	3625.7	3151.3	2700.0
50°	7412.1	7010.4	6465.5	6026.3	5656.5	5290.0	4845.3	4312.5	3761.1	3268.0	2780.4
52.5°	7942.7	7597.0	7023.6	6468.8	6042.8	5631.2	5073.1	4467.7	3897.6	3375.8	2846.4
55°	8332.3	8102.3	7573.9	6886.0	6383.0	5892.0	5265.7	4617.4	4026.4	3461.7	2889.3
57.5°	8626.2	8498.5	8045.0	7278.9	6695.6	6145.2	5465.0	4796.9	4154.0	3535.4	2909.1
60°	8786.9	8822.1	8401.6	7622.3	6971.8	6356.5	5664.2	4949.8	4248.7	3578.4	2898.1
62.5°	8771.5	8987.2	8669.1	7833.7	7132.5	6482.0	5798.5	5021.4	4235.5	3510.1	2798.0
63°	8741.8	8992.7	8698.8	7848.0	7142.4	6486.4	5801.8	5011.5	4208.0	3477.1	2758.4
65°	8485.3	8866.1	8673.5	7783.0	7054.4	6403.9	5732.4	4868.4	4014.3	3299.9	2554.7
67.5°	7798.5	8275.1	8220.0	7324.1	6637.2	6062.7	5378.0	4407.2	3535.4	2864.0	2165.1
70°	6663.6	7111.6	7121.5	6369.8	5796.3	5232.7	4663.7	3586.1	2802.4	2220.1	1614.7
72.5°	5107.2	5395.6	5495.8	5000.5	4616.3	4220.1	3709.4	2603.2	1997.8	1510.2	1051.2
75°	3954.8	3875.6	3874.5	3665.3	3509.0	3315.3	2754.0	1756.7	1312.0	981.8	642.8
77.5°	3555.3	3203.0	2861.8	2610.9	2485.4	2420.4	1806.2	1058.9	773.8	564.7	369.8
80°	2932.3	2412.7	1949.3	1678.6	1570.7	1645.5	1007.1	572.4	423.8	321.4	240.0
82.5°	2022.0	1678.6	1275.7	1056.7	907.0	948.8	515.1	292.8	195.9	179.4	148.6
85°	1053.4	923.5	779.3	669.2	591.1	519.5	267.5	139.8	81.5	71.5	64.9
87.5°	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6
2.5°	1164.5	1163.4	1165.6	1166.7	1170.0	1172.2	1173.3	1171.1	1174.4	1177.7	1175.5
5°	1195.4	1203.1	1204.2	1207.5	1207.5	1214.1	1214.1	1214.1	1213.0	1214.1	1211.9
7.5°	1221.8	1231.7	1232.8	1237.2	1238.3	1246.0	1242.7	1244.9	1244.9	1239.4	1237.2
10°	1225.1	1235.0	1240.5	1246.0	1253.7	1263.6	1263.6	1269.1	1269.1	1264.7	1263.6
12.5°	1226.2	1233.9	1239.4	1247.1	1258.1	1272.4	1280.1	1287.8	1291.1	1290.0	1286.7
15°	1249.3	1249.3	1250.4	1257.0	1264.7	1282.3	1293.3	1302.1	1307.6	1305.4	1299.9
17.5°	1309.8	1301.0	1294.4	1283.4	1285.6	1294.4	1301.0	1308.7	1309.8	1307.6	1298.8
20°	1380.3	1369.3	1352.8	1335.1	1326.3	1319.7	1315.3	1315.3	1312.0	1301.0	1286.7
22.5°	1480.4	1466.1	1443.0	1416.6	1399.0	1378.1	1352.8	1328.5	1302.1	1275.7	1244.9
25°	1619.1	1599.3	1575.1	1534.4	1497.0	1452.9	1401.2	1347.3	1284.5	1229.5	1184.4
27.5°	1758.9	1714.9	1652.2	1596.0	1526.7	1460.6	1386.9	1320.8	1240.5	1174.4	1124.9
30°	1874.5	1790.8	1700.6	1611.4	1520.1	1430.9	1342.9	1263.6	1175.5	1108.4	1060.0
32.5°	1963.6	1848.1	1722.6	1605.9	1493.6	1384.7	1283.4	1195.4	1106.2	1036.9	985.1
35°	2046.2	1885.5	1725.9	1581.7	1443.0	1329.6	1215.2	1119.4	1024.8	952.1	896.0
37.5°	2107.8	1903.1	1706.1	1536.6	1377.0	1250.4	1133.7	1035.8	938.9	859.6	795.8
40°	2147.5	1892.1	1663.2	1471.6	1298.8	1165.6	1046.8	945.5	851.9	765.0	687.9
42.5°	2179.4	1877.8	1620.2	1412.2	1237.2	1091.9	969.7	860.7	766.1	671.4	586.7
45°	2226.7	1888.8	1601.5	1370.4	1182.2	1029.2	894.9	781.5	682.4	590.0	508.5
47.5°	2272.9	1894.3	1574.0	1318.6	1112.8	964.2	827.7	717.7	616.4	531.6	456.8
50°	2314.8	1891.0	1531.1	1252.6	1045.7	899.3	767.2	657.1	557.0	478.8	408.4
52.5°	2334.6	1872.3	1478.2	1188.8	991.7	842.0	707.8	601.0	501.9	428.2	363.2
55°	2332.4	1823.9	1408.9	1128.2	932.3	781.5	649.4	543.7	454.6	386.3	330.2
57.5°	2299.4	1749.0	1335.1	1061.1	854.1	706.6	581.2	478.8	404.0	346.7	299.4
60°	2230.0	1653.3	1238.3	963.1	756.2	614.2	496.4	408.4	347.8	303.8	273.0
62.5°	2100.1	1515.7	1117.2	826.6	624.1	494.2	391.8	334.6	289.5	263.1	248.8
63°	2061.6	1478.2	1065.5	793.6	593.3	466.7	369.8	310.4	277.4	254.3	241.1
65°	1870.1	1294.4	891.6	640.6	461.2	359.9	297.2	252.1	232.2	222.3	221.2
67.5°	1514.6	1018.1	630.7	439.2	313.7	259.8	227.8	209.1	200.3	198.1	200.3
70°	1063.3	642.8	400.7	291.7	232.2	209.1	194.8	187.1	181.6	182.7	184.9
72.5°	678.0	385.2	275.2	221.2	195.9	183.8	177.2	175.0	173.9	172.8	172.8
75°	386.3	256.5	211.3	191.5	178.3	168.4	162.9	160.7	161.8	162.9	160.7
77.5°	255.4	211.3	188.2	175.0	162.9	151.9	148.6	147.5	149.7	151.9	151.9
80°	201.4	188.2	175.0	161.8	142.0	134.3	136.5	137.6	136.5	137.6	134.3
82.5°	142.0	139.8	143.1	137.6	117.8	111.2	109.0	110.1	107.9	107.9	105.7
85°	66.0	66.0	69.3	69.3	67.1	68.2	73.7	80.4	83.7	80.4	75.9
87.5°	0.0	0.0	0.0	0.0	0.0	9.9	19.8	28.6	30.8	38.5	37.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P152805

CATALOG NUMBER: VWM-F04-LED-E1-SLL

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6
2.5°	1172.2	1174.4	1173.3	1172.2	1174.4	1172.2	1173.3	1172.2	1172.2	1171.1	1171.1
5°	1209.7	1213.0	1206.4	1205.3	1203.1	1197.6	1197.6	1195.4	1195.4	1191.0	1187.7
7.5°	1233.9	1235.0	1229.5	1228.4	1222.9	1217.4	1213.0	1208.6	1207.5	1204.2	1197.6
10°	1257.0	1254.8	1250.4	1244.9	1239.4	1231.7	1226.2	1220.7	1219.6	1214.1	1206.4
12.5°	1276.8	1275.7	1266.9	1261.4	1252.6	1244.9	1238.3	1231.7	1228.4	1221.8	1210.8
15°	1290.0	1283.4	1272.4	1262.5	1252.6	1243.8	1236.1	1228.4	1225.1	1217.4	1206.4
17.5°	1284.5	1272.4	1258.1	1246.0	1232.8	1221.8	1215.2	1207.5	1202.0	1197.6	1182.2
20°	1264.7	1247.1	1225.1	1210.8	1193.2	1178.8	1174.4	1166.7	1162.3	1145.8	1126.0
22.5°	1213.0	1187.7	1160.1	1139.2	1119.4	1105.1	1094.1	1086.4	1075.4	1065.5	1034.7
25°	1148.0	1119.4	1090.8	1065.5	1039.1	1017.0	997.2	978.5	973.0	952.1	922.4
27.5°	1085.3	1053.4	1024.8	995.0	960.9	933.4	899.3	872.9	855.2	833.2	805.7
30°	1018.1	986.2	947.7	908.1	868.5	838.7	800.2	768.3	746.3	723.2	697.8
32.5°	933.4	894.9	848.6	804.6	768.3	733.1	694.5	663.7	641.7	620.8	596.6
35°	836.5	785.9	736.4	687.9	649.4	619.7	585.6	562.5	547.0	528.3	503.0
37.5°	725.4	668.1	615.3	577.9	543.7	515.1	490.9	476.6	460.1	450.2	434.8
40°	613.1	557.0	505.2	471.1	442.5	426.0	412.8	409.5	398.5	385.2	375.3
42.5°	514.0	460.1	409.5	381.9	363.2	358.8	352.2	352.2	346.7	336.8	330.2
45°	446.9	390.7	346.7	326.9	317.0	315.9	312.6	312.6	311.5	307.1	299.4
47.5°	398.5	347.8	313.7	301.6	299.4	297.2	293.9	292.8	291.7	288.4	284.0
50°	354.4	311.5	289.5	284.0	285.1	281.8	278.5	275.2	274.1	270.8	266.4
52.5°	313.7	282.9	268.6	265.3	265.3	265.3	263.1	263.1	260.9	259.8	255.4
55°	290.6	267.5	259.8	258.7	257.6	256.5	254.3	254.3	252.1	251.0	245.5
57.5°	270.8	256.5	252.1	249.9	248.8	246.6	245.5	245.5	245.5	245.5	238.9
60°	255.4	248.8	247.7	245.5	244.4	240.0	237.8	236.7	237.8	238.9	232.2
62.5°	238.9	237.8	236.7	234.4	233.3	228.9	225.6	223.4	225.6	227.8	226.7
63°	234.4	233.3	233.3	232.2	231.1	225.6	222.3	220.1	222.3	224.5	224.5
65°	219.0	220.1	220.1	219.0	217.9	214.6	210.2	208.0	209.1	212.4	213.5
67.5°	202.5	203.6	202.5	203.6	202.5	200.3	197.0	194.8	193.7	194.8	195.9
70°	187.1	189.3	188.2	187.1	186.0	186.0	183.8	180.5	179.4	178.3	178.3
72.5°	173.9	173.9	171.7	171.7	170.6	170.6	168.4	165.1	164.0	164.0	161.8
75°	159.6	159.6	156.3	156.3	154.1	155.2	153.0	149.7	148.6	148.6	147.5
77.5°	150.8	147.5	142.0	140.9	139.8	139.8	138.7	135.4	134.3	134.3	133.2
80°	133.2	126.6	121.1	120.0	121.1	123.3	123.3	121.1	121.1	121.1	121.1
82.5°	103.5	101.3	98.0	95.8	95.8	99.1	103.5	105.7	107.9	110.1	110.1
85°	75.9	77.0	75.9	72.6	71.5	74.8	79.3	83.7	84.8	89.2	88.1
87.5°	40.7	41.8	38.5	37.4	40.7	42.9	47.3	48.4	50.6	51.7	52.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: VWM-F04-LED-E1-SLL

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6
2.5°	1170.0	1168.9	1170.0	1167.8	1167.8	1165.6	1163.4	1162.3	1160.1	1159.0	1156.8
5°	1189.9	1186.6	1183.3	1182.2	1177.7	1173.3	1170.0	1164.5	1160.1	1152.4	1150.2
7.5°	1203.1	1195.4	1191.0	1189.9	1183.3	1180.0	1172.2	1165.6	1159.0	1149.1	1145.8
10°	1208.6	1200.9	1193.2	1189.9	1182.2	1176.6	1168.9	1159.0	1153.5	1143.6	1141.4
12.5°	1215.2	1200.9	1188.8	1180.0	1168.9	1156.8	1149.1	1143.6	1135.9	1130.4	1128.2
15°	1203.1	1184.4	1165.6	1149.1	1131.5	1118.3	1110.6	1101.8	1093.0	1089.7	1089.7
17.5°	1170.0	1145.8	1113.9	1093.0	1074.3	1060.0	1050.1	1041.3	1040.2	1035.8	1038.0
20°	1101.8	1069.9	1039.1	1023.7	1012.6	1003.8	993.9	989.5	986.2	979.6	977.4
22.5°	1007.1	980.7	958.7	947.7	938.9	927.9	919.1	905.9	902.6	896.0	892.7
25°	902.6	881.7	862.9	855.2	849.7	834.3	828.8	811.2	799.1	791.4	795.8
27.5°	798.0	782.6	765.0	755.1	751.8	737.5	732.0	712.2	702.2	702.2	691.2
30°	690.1	675.8	664.8	653.8	651.6	634.0	619.7	612.0	601.0	596.6	588.9
32.5°	588.9	574.6	565.8	560.3	551.5	537.1	522.8	509.6	492.0	485.4	482.1
35°	495.3	484.3	473.3	468.9	456.8	441.4	423.8	412.8	391.8	384.1	380.8
37.5°	423.8	410.6	402.9	390.7	378.6	362.1	348.9	339.0	331.3	328.0	328.0
40°	366.5	356.6	347.8	337.9	328.0	319.2	312.6	310.4	309.3	309.3	311.5
42.5°	323.6	314.8	310.4	304.9	301.6	301.6	300.5	301.6	302.7	303.8	307.1
45°	295.0	289.5	287.3	286.2	288.4	290.6	291.7	293.9	298.3	300.5	301.6
47.5°	279.6	275.2	274.1	275.2	278.5	282.9	287.3	290.6	293.9	295.0	296.1
50°	264.2	258.7	256.5	258.7	263.1	269.7	273.0	278.5	280.7	282.9	280.7
52.5°	251.0	246.6	245.5	245.5	249.9	254.3	258.7	263.1	264.2	264.2	263.1
55°	240.0	236.7	233.3	235.5	238.9	243.3	249.9	253.2	255.4	256.5	256.5
57.5°	231.1	227.8	224.5	226.7	230.0	234.4	241.1	244.4	246.6	249.9	251.0
60°	224.5	220.1	216.8	220.1	223.4	230.0	235.5	238.9	244.4	245.5	245.5
62.5°	217.9	213.5	208.0	211.3	211.3	214.6	220.1	224.5	230.0	232.2	232.2
63°	216.8	212.4	206.9	209.1	209.1	211.3	215.7	220.1	226.7	228.9	227.8
65°	208.0	206.9	201.4	201.4	199.2	201.4	204.7	209.1	212.4	215.7	215.7
67.5°	193.7	192.6	191.5	191.5	191.5	193.7	195.9	199.2	202.5	204.7	203.6
70°	177.2	177.2	177.2	178.3	178.3	180.5	181.6	180.5	183.8	186.0	184.9
72.5°	162.9	161.8	160.7	162.9	161.8	161.8	164.0	162.9	166.2	166.2	167.3
75°	147.5	146.4	146.4	147.5	145.3	143.1	144.2	144.2	145.3	145.3	147.5
77.5°	134.3	134.3	134.3	133.2	131.0	129.9	128.8	128.8	128.8	128.8	129.9
80°	122.2	122.2	122.2	121.1	118.9	116.7	114.5	113.4	112.3	106.8	106.8
82.5°	110.1	110.1	110.1	110.1	109.0	106.8	103.5	94.7	90.3	85.9	87.0
85°	87.0	89.2	91.4	94.7	93.6	93.6	87.0	75.9	69.3	64.9	66.0
87.5°	56.1	49.5	49.5	48.4	46.2	44.0	44.0	37.4	30.8	27.5	28.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P152805
 CATALOG NUMBER: VWM-F04-LED-E1-SLL

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	0°
2.5°	1156.8	1154.6	1152.4	1152.4	1149.1	1149.1	1146.9	1151.3	1146.9	1143.6	1143.6	2.5°
5°	1148.0	1145.8	1139.2	1138.1	1133.7	1133.7	1133.7	1131.5	1131.5	1129.3	1128.2	5°
7.5°	1142.5	1137.0	1131.5	1128.2	1128.2	1126.0	1130.4	1128.2	1129.3	1129.3	1130.4	7.5°
10°	1138.1	1133.7	1131.5	1130.4	1130.4	1133.7	1137.0	1138.1	1137.0	1138.1	1138.1	10°
12.5°	1127.1	1129.3	1130.4	1134.8	1140.3	1146.9	1154.6	1155.7	1157.9	1157.9	1160.1	12.5°
15°	1091.9	1097.4	1104.0	1115.0	1129.3	1143.6	1157.9	1170.0	1181.1	1186.6	1191.0	15°
17.5°	1042.4	1047.9	1060.0	1072.1	1090.8	1111.7	1135.9	1156.8	1180.0	1200.9	1221.8	17.5°
20°	975.2	984.0	987.3	1009.3	1031.4	1060.0	1088.6	1121.6	1161.2	1200.9	1241.6	20°
22.5°	888.3	898.2	913.6	931.2	954.3	989.5	1023.7	1075.4	1128.2	1184.4	1248.2	22.5°
25°	791.4	802.4	815.6	834.3	857.4	894.9	944.4	999.4	1064.4	1138.1	1217.4	25°
27.5°	691.2	702.2	713.3	726.5	752.9	792.5	850.8	908.1	979.6	1060.0	1152.4	27.5°
30°	591.1	592.2	598.8	615.3	642.8	694.5	737.5	809.0	883.9	968.6	1075.4	30°
32.5°	481.0	479.9	487.6	501.9	528.3	577.9	630.7	700.0	773.8	880.6	990.6	32.5°
35°	383.0	383.0	397.4	411.7	441.4	476.6	522.8	584.5	671.4	770.5	880.6	35°
37.5°	331.3	339.0	347.8	362.1	385.2	412.8	453.5	507.4	575.7	670.3	771.6	37.5°
40°	314.8	319.2	326.9	340.1	359.9	385.2	415.0	455.7	508.5	584.5	676.9	40°
42.5°	308.2	309.3	313.7	323.6	341.2	366.5	397.4	433.7	473.3	527.2	607.6	42.5°
45°	301.6	300.5	302.7	310.4	324.7	353.3	388.5	428.2	467.8	512.9	579.0	45°
47.5°	296.1	296.1	296.1	299.4	312.6	341.2	381.9	428.2	475.5	526.1	591.1	47.5°
50°	280.7	279.6	279.6	281.8	291.7	322.5	370.9	427.1	488.7	554.8	628.5	50°
52.5°	263.1	263.1	264.2	265.3	274.1	304.9	358.8	427.1	504.1	592.2	684.6	52.5°
55°	257.6	258.7	259.8	258.7	265.3	291.7	345.6	420.5	510.7	621.9	745.2	55°
57.5°	253.2	255.4	255.4	254.3	258.7	280.7	332.4	407.3	505.2	632.9	788.1	57.5°
60°	246.6	246.6	246.6	243.3	245.5	265.3	312.6	386.3	487.6	623.0	794.7	60°
62.5°	232.2	232.2	230.0	228.9	227.8	243.3	286.2	355.5	455.7	596.6	778.2	62.5°
63°	228.9	227.8	227.8	224.5	224.5	238.9	280.7	351.1	446.9	590.0	771.6	63°
65°	216.8	216.8	216.8	214.6	213.5	224.5	258.7	320.3	412.8	559.2	738.6	65°
67.5°	203.6	204.7	202.5	201.4	200.3	206.9	233.3	281.8	359.9	494.2	676.9	67.5°
70°	184.9	186.0	186.0	184.9	183.8	188.2	204.7	242.2	298.3	411.7	576.8	70°
72.5°	168.4	170.6	170.6	172.8	172.8	176.1	182.7	201.4	238.9	321.4	453.5	72.5°
75°	150.8	151.9	154.1	156.3	154.1	153.0	154.1	168.4	187.1	237.8	323.6	75°
77.5°	135.4	138.7	138.7	137.6	134.3	132.1	132.1	138.7	154.1	180.5	231.1	77.5°
80°	112.3	117.8	118.9	115.6	112.3	112.3	114.5	118.9	128.8	148.6	175.0	80°
82.5°	90.3	95.8	96.9	98.0	96.9	100.2	100.2	101.3	106.8	122.2	143.1	82.5°
85°	69.3	73.7	77.0	78.1	79.3	80.4	79.3	73.7	77.0	87.0	96.9	85°
87.5°	30.8	31.9	29.7	30.8	29.7	30.8	31.9	26.4	25.3	34.1	35.2	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



NUMBER: P152805

NUMBER: VWM-F04-LED-E1-SLL

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
1154.6	1154.6	1154.6	1154.6	1154.6	1154.6	1154.6
1142.5	1142.5	1143.6	1141.4	1141.4	1142.5	1139.2
1124.9	1129.3	1129.3	1129.3	1127.1	1129.3	1130.4
1129.3	1132.6	1134.8	1134.8	1133.7	1138.1	1141.4
1134.8	1140.3	1142.5	1142.5	1142.5	1148.0	1155.7
1155.7	1160.1	1163.4	1163.4	1165.6	1172.2	1181.1
1194.3	1199.8	1199.8	1198.7	1205.3	1213.0	1222.9
1237.2	1252.6	1260.3	1259.2	1264.7	1274.6	1285.6
1277.9	1320.8	1339.6	1352.8	1358.3	1371.5	1374.8
1312.0	1383.6	1435.3	1479.3	1500.3	1513.5	1528.9
1299.9	1396.8	1489.2	1579.5	1643.3	1708.3	1735.8
1250.4	1371.5	1492.5	1624.6	1740.2	1855.8	1939.4
1189.9	1335.1	1498.1	1685.2	1867.9	2045.1	2186.0
1120.5	1301.0	1510.2	1741.3	1981.3	2213.5	2417.1
1033.6	1236.1	1480.4	1746.8	2029.7	2311.5	2575.6
923.5	1148.0	1411.1	1707.2	2031.9	2354.4	2670.3
813.4	1036.9	1323.0	1649.9	2003.3	2364.3	2729.7
736.4	937.8	1233.9	1577.3	1957.0	2348.9	2758.4
683.5	866.3	1154.6	1511.3	1907.5	2321.4	2762.8
679.1	835.4	1102.9	1462.8	1867.9	2297.2	2762.8
716.6	851.9	1085.3	1438.6	1851.4	2289.5	2765.0
787.0	918.0	1117.2	1457.3	1864.6	2299.4	2774.9
871.8	1018.1	1203.1	1522.3	1920.7	2332.4	2796.9
948.8	1133.7	1349.5	1647.7	2023.1	2416.0	2858.5
993.9	1232.8	1504.7	1823.9	2198.1	2582.2	2981.8
999.4	1287.8	1642.2	2015.4	2410.5	2772.7	3178.8
995.0	1292.2	1659.9	2051.7	2455.7	2820.0	3247.1
970.8	1293.3	1709.4	2179.4	2612.0	3019.2	3437.5
909.2	1258.1	1727.0	2279.5	2809.0	3281.2	3793.0
802.4	1157.9	1675.3	2281.8	2884.9	3427.6	4017.6
645.0	967.5	1451.8	2075.9	2684.6	3283.4	3959.2
472.2	711.1	1097.4	1608.1	2190.4	2733.0	3391.3
313.7	460.1	739.7	1145.8	1570.7	1967.0	2441.4
215.7	285.1	432.6	689.0	960.9	1153.5	1555.3
158.5	188.2	240.0	352.2	462.3	569.1	812.3
99.1	107.9	120.0	173.9	248.8	335.7	506.3
26.4	27.5	25.3	34.1	53.9	51.7	57.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)